

## INCREASED UTILIZATION OF MRI FOR BREAST CANCER SURVEILLANCE AND STAGING DOES NOT INCREASE RATE OF MASTECTOMY

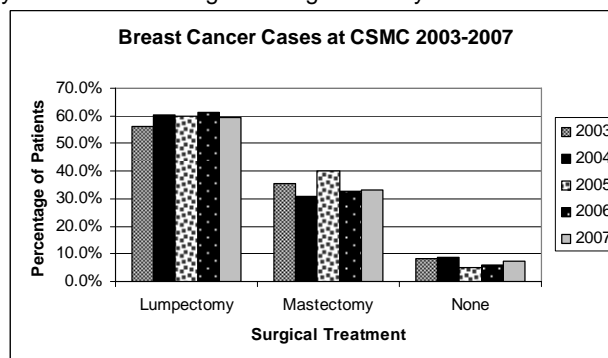
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**Introduction:** The use of MRI in surveillance and staging of breast cancer has increased greatly in recent years. Breast MRI has greater sensitivity than mammogram, ultrasound, and clinical breast exam in cancer detection. However, MRI is more costly and less specific. Some studies report false positive rates for breast MRI as high as 70 to 80%. Because of its high sensitivity and low specificity, there has been concern that increased utilization of breast MRI will result in increased numbers of women undergoing mastectomy unnecessarily.

**Hypothesis:** We postulated that increased use of breast MRI would not increase the rate of mastectomy for early stage breast cancer.

**Methods:** We performed a retrospective analysis of imaging tests ordered by full-time attending surgeons at a busy breast center from 2003 to 2007. We also reviewed all breast cancer cases reported to the national cancer registry from our institution during the same time period and categorized them as having been treated with mastectomy or breast conserving surgery.

**Results:** From 2003 to 2007, the number of breast MRIs ordered annually by breast surgeons increased from 68 to 358. The rate of MRI utilization increased from 4.1 per every 100 patients seen to 5.7 and from 1.6 per every 100 *new* patients seen to 2.9. The percentage of women with breast cancer treated with mastectomy remained unchanged during this five year interval.



**Conclusions:** MRI is being used more frequently. The increased use of breast MRI has not resulted in more women undergoing mastectomy unnecessarily. MRI is useful in preoperative staging of women newly diagnosed with breast cancer.